

REMARKS

A. Request for Reconsideration

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remain of the position that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the amendments to the claims and the following remarks.

B. The Invention

The present invention is directed to a system to increase the capacity of satellite intermediate frequency distribution networks.

In one of the novel aspects of the invention, the header receives original signals in QPSK format and processes the signals into QAM format. The header then outputs QAM signals to the user's converter which reconverts the QAM signals into QPSK format.

In conventional systems, the original bandwidth is greater than the available bandwidth in the distribution network. Applicants have discovered that the system of the present invention solves the bandwidth problem of conventional systems.

C. Claim Status and Amendments

Claims 1-8 are presented for further prosecution.

Claim 1 has been amended to more clearly recite that the header processes the original signals from QPSK format into QAM format, and that the header output signals are sent to the user's converter which reconverts the QAM format into QPSK format. It is submitted that claim 1 has merely been reworded to clarify the claim and that no new matter has been added.

D. Claim Objections

Claims 3 and 4 had been rejected for being multiple dependent claims that depend on other multiple dependent claims.

Applicants note that the Amendment Concurrent with Filing removed multiple dependency from the claims. Nonetheless, claims 1-8 presented in this amendment no longer contain multiple dependency.

E. Claim rejections based on Oishi

Claims 1, 2, 5, 6 and 7 had been rejected as being unpatentable over Oishi in view of Applicants' disclosure.

Oishi had been cited to teach a header that receives signals in QPSK format and processes the signals into QAM format. The Examiner had cited page 3, lines 25-27 of Applicants' disclosure to teach that is it known to reconvert

signals into original form. Thus, the Examiner had taken the position that Applicants' disclosure teaches reconvert signals in QAM format into QPSK format before the signals are sent to the user's receiver.

1. Applicants' disclosure does not explain that it is known to reconvert signals from QAM format into QPSK format

The cited portion of the disclosure does not relate to the reconversion of QAM format signals into QPSK format signals as suggested by the Examiner. Rather, the cited portion refers to a conversion from UHF to FIS as further explained below.

The disclosure of the present invention begins by explaining that two types of conversion systems exist, a first system with a FIS/FIS conversion, and a second system with a FIS/UHF conversion (page 1, lines 19-30).

During Applicants' general discussion of the FIS/UHF system, Applicants explain that the signals are first converted from FIS to UHF (page 3, lines 21-24), and thereafter the reverse group converter (CPI1) "returns the signals to the FIS band spectrum" (page 3, lines 25-27).

The cited portion of the disclosure therefore explains that FIS/UHF systems first convert the FIS signals into UHF, followed by a reconversion from UHF into FIS. The cited portion of the

disclosure is unrelated to conversions involving QAM and QPSK formats.

Applicants therefore respectfully submit that the disclosure does not suggest that it is known to reconvert QAM format signals into QPSK format signals as recited in claim 1. In fact, the cited portion of the disclosure is related to FIS/UHF systems, not QAM/QPSK signals. Thus, it is believed that the disclosure does not suggest this feature of the present invention.

2. It would not be obvious to convert QAM formatted signals into QPSK formatted signals in the system of Oishi

Oishi teaches that each household is provided with CS tuner 13 and receiver 11 which receives CS intermediate frequency signals (pars. 50 and 52). The CS intermediate signals of Oishi have been converted into 64 QAM format (pars. 41 and 45). Thus, receiver 11 of Oishi receives signals in QAM format.

Those skilled in the art would not modify the teachings of Oishi to transmit signals to the user's receiver in QPSK format as recited in claim 1. First, Oishi specifically teaches transmitting signals to the user's receiver in QAM format. Thus, the specific teachings of Oishi would have to be disregarded to arrive at the claimed invention.

Second, those skilled in the art would not disregard the teachings of Oishi without strong motivation to do so. Such motivation does not exist in Oishi, since Oishi does not suggest the benefits of the QPSK/QAM/QPSK conversion disclosed by the present invention.

Applicants therefore respectfully submit that it would not be obvious to modify the teachings of Oishi to arrive at the present invention, since Oishi teaches that signals are transmitted to the user's receiver in QAM format.

F. Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance and such action is respectfully requested. Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account # 02-2275.

Respectfully submitted,

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